

# **LHeC Workshop**



**Monday, January 20, 2014 - Tuesday, January 21, 2014**

**Chavannes-de-Bogis**

## **Scientific Program**

The 2014 LHeC workshop follows the publication of its conceptual design report (CDR) and the discovery of the Higgs boson in 2012. Recent LHeC progress concerns the study of the increase of its luminosity to  $10^{34}\text{cm}^{-2}\text{s}^{-1}$ , the choice of the frequency of 802 MHz as well as the design towards an energy recovery test facility with up to 1 GeV of electron beam energy. The workshop will discuss progress on the LHeC physics (Higgs, top, heavy ions etc) in conjunction with the evolution and simulation of the detector design. It will consider maximising the ep luminosity in synchronous ep and pp operation at the LHC, including a heavy ion programme, and progress in the design of the ERL test facility at CERN. Very recent developments towards a future multi-TeV proton accelerator at CERN open prospects for ep/eA experimentation at yet enlarged energy. The workshop is open for contributions on the various aspects of the LHeC development and its relation to the LHC. It is prepared by an organising committee in collaboration with the working group convenors and an international advisory committee.